

## **CHAPTER 6 - ANNEX - G - OCCUPATIONAL HEALTH**

### **6.G.1 - PURPOSE -**

1. This plan prescribes facility policy, responsibilities, and procedures to protect facility personnel and property against accidental loss. It provides for safety incident to Army National Guard operations and safe and healthful workplaces, procedures and equipment.
2. To reduce and keep to a minimum accidental manpower and financial losses, thus providing effectiveness of the facility.

### **6.G.2 - SCOPE -**

This annex applies to all personnel employed at this facility.

### **6.G.3 - RESPONSIBILITIES -**

1. The facility commander is responsible for prevention of accidents involving personnel, and operations within the jurisdiction of the facility.
2. Section supervisors are responsible for integrating accident prevention in all operations and activities under their control, and will maintain an aggressive safety program based on these regulations and the annex.

#### **6.3.1 - FACILITY SAFETY OFFICER -**

1. The facility safety officer will be appointed by the facility commander.
2. The facility safety officer's objective is the prevention of accidents which result in injuries to personnel and damage to property, materials and equipment. In this respect, he represents the facility commander and is therefore authorized to enforce rules which pertain to safety, as prescribed by Army and National Guard regulations and directives. In circumstances where a condition is imminently hazardous to life, limb or property, he/she is authorized to stop operations until the conditions have been corrected.

### **6.G.4 - FUNCTIONS OF THE FACILITY SAFETY OFFICER -**

1. To provide proper accident control measures for all operations and activities under the jurisdiction of the facility.
2. Investigate and analyze, or supervise the investigation and analysis of all accidents, and recommends measures to prevent their recurrence. The safety officer will prepare or supervise the preparation of reports of accidents required by higher headquarters.
3. Monitor or assist with frequent safety inspections or surveys of the facility and its shops. He makes recommendations to the commander for elimination or control of mechanical and physical hazards as well as unsafe acts.
4. He recommends to the facility commander necessary changes in policy or procedures to minimize unsafe acts.
5. Keeps the facility commander informed of all safety matters.

### **6.G.5 - ENFORCEMENT OF SAFETY PROGRAM -**

1. Each section supervisor and key personnel is responsible for the enforcement of safety regulations.
2. Each section chief is responsible for maintenance of safe working conditions, safe tools and equipment, and thorough safety instructions relevant to activities under their jurisdiction.
3. Each individual technician is charged with the responsibility of notifying his immediate supervisor of any unsafe condition or practice observed within their unit or working area.
4. Each individual technician is charged with the responsibility of reporting any accident, regardless of its insignificance, to the immediate supervisor on duty at the time of the accident, or as soon as possible thereafter. The safety officer will be immediately notified by the informed supervisor.

## **6.G.6 - SAFETY STANDARDS -**

1. Safety standards and codes established by recognized authorities such as the American Standards Association, National Bureau of Standards, Occupational Safety and Health Act (OSHA), Interstate Commerce Commission (ICC) and the National Bureau of Fire Underwriters are acceptable as guides in the formulation of safety requirements.
2. An exception would be if standards and codes conflict with DA or NGB directives, in which case the DA, NGB directives will govern.

## **6.G.7 - HOUSEKEEPING -**

1. Floors and work areas shall be clean and free of tools, supplies and materials.
2. Slippery substances or water will be immediately cleaned.
3. An adequate supply of refuse and approved rag storage containers with tight fitting lids will be placed in all shop areas. Each type of container will be properly identified.

## **6.G.8 - MATERIAL HANDLING -**

1. Proper lifting, carrying, and placing techniques will be used. Safety rules which apply to both manual lifting and lowering loads will be adhered to. The application of proper techniques will prevent potential back and abdominal injuries.
2. Keep feet close to the load and firmly placed, bend knees while keeping back vertical as possible, obtain a firm grip and lift by straightening the legs.
3. Lift evenly and avoid jerky movements, awkward and off balanced positions, and rotating motions.
4. If the load is too heavy, call for help!
5. When two (2) or more are working in unison, use voice commands that have previously been agreed upon. Avoid loads that obstruct the vision.
6. Exercise extreme caution in carrying loads in congested areas, on stairs, or on unsure footing.
7. When pushing heavy objects, approach the object sideways and apply one shoulder. Never face load and push straight ahead, or place your back to the load and push backward.
8. Before handling materials, check for splinters, nails, staples, hot or slippery surfaces, and conditions which could lead to an injury.
9. See lifting techniques booklet by American Red Cross in Safety Library in flight planning room.

## **6.G.9 - HAND TOOLS -**

1. Use the correct tool for the job.
2. Make sure the tool is serviceable.
3. Use the tool for its intended purpose.
4. Soldering picks, screwdrivers, knives, and other pointed or sharp edged tools should be held with the sharp edge pointing away from the hands, and other parts of the body, in order to prevent injury if the tool should slip when being used.
5. Use single ended soldering picks only.
6. When pushing or pulling while using a wrench, keep your weight evenly distributed on a solid footing or surface, and be prepared if the tool unexpectedly slips.
7. Tools with mushroom heads, loose handles, bent or broken blades should be turned into supply immediately.
8. Only experienced personnel may be employed in tempering or grinding tools. Protective clothing and safety glasses or goggles will be worn when operating these pieces of equipment.
9. Unused tools will be properly stored in order to avoid injury when reaching into a tool box or cabinet to retrieve one.

## **6.G.10 - POWER MACHINERY -**

1. Only authorized personnel will be permitted to operate power machinery.
2. Ensure that all personnel are clear and protective guards are in place before turning on any power machinery.
3. Machinery with any defects will not be operated until properly repaired.
4. Power machines must be securely bolted to the floor if a toppling hazard exists, or if walking will occur while it is being operated.

5. Only authorized personnel will be permitted to remove and replace machine guards. Guards will be in place before operating machinery.
6. No loose articles of clothing such as sleeves, cuffs, neckties, loosely fitting aprons, shoelaces, etc. will be worn by power machine operators.
7. Power machines will not be left unattended while in operation.
8. Safety locks and warning signs must be used by workers when electrically powered equipment is being used.

## **6.G.11 - OXYGEN-ACETYLENE, ARC WELDING AND CUTTING -**

Not applicable.

## **6.G.12 - ELECTRONIC EQUIPMENT -**

1. Unless it is procedurally called for, the power will be turned off before working on high voltage equipment. If the electrical power must be left on, then only one (1) hand should be used to accomplish the task.
2. When the power is on, only insulated tools and protective coverings will be used for working on or around high voltage equipment
3. A portable insulation ground connection must be provided and used on high voltage equipment when servicing it.
4. Know your circuits. Each worker should be familiar with the circuits of any equipment before working on it. Particularly those pieces with high voltage.
5. Do not work on any electrical or electronic equipment with the power turned on when your shoes or the location on which you are standing is wet or damp. Forty (4) milliamperes at 110 volts of alternating current can be fatal.
6. All areas where high voltage is present must be roped or fenced off and a warning sign posted.
7. Make certain high capacity condensers (4) microfads or more are discharged before working on or around them. Large capacitors (100 microfads or more) should be shorted by a jumper wire when being kept in storage.
8. Do not use trouble lamps around high voltage equipment unless they can be fully insulated and protected.
9. Make certain that your anticipated end result will occur by double checking your connections before moving any switch to the ON position.
10. Beware that the use of carbon tetrachloride poses many potential serious health problems. Improper use of it can result in death, temporary or permanent damage to the liver, kidneys and to the nervous system. Its effects may be immediate or delayed.
11. When smoke fumes or suspicious odors are noted around and about electronic equipment, shut the power source off and investigate the cause.
12. The chassis of AC-DC equipment may be "hot" when set is plugged into, an electrical power source regardless of whether the switch is in the ON or OFF position. Avoid contact with a grounding source when touching the chassis.
13. Do not use knives, screwdrivers, or other edged tools to remove vacuum tubes. Check temperature of the tube by quickly touching with your finger before attempting to remove it with your bare hands. Tube pullers must be used when tubes are difficult to remove.
14. Never replace a burned out fuse with metal substitutes or higher rated fuses.
15. The tops of work benches should be covered with insulating material.
16. Never use a metal object such as a probe to pry on electronic equipment when the power switch is ON.
17. Arc flashes can cause permanent eye damage and fires. Prevent flashes whenever possible and never watch flashes without eye protection.
18. Avoid soldering or unsoldering wires or components under tension to prevent molten solder from flying into eyes or face when wires or components brake lose.
19. Make shift hook-ups are hazardous. Avoid tangled masses of wiring and components wherever possible.
20. Do not overload meters. Whenever a reasonable doubt exists, begin with the highest range and work down to the desired range.
21. While installing antennas, use only approved ladders with lashing so that it may be secured to a fixed object.
22. Before connecting or disconnecting air hoses, close the supply valve and bleed the air line if a bleeder valve is provided.
23. Electricity is a quick and dangerous killer. (Practical jokes will not be tolerated.)

24. If a person is "frozen" to an electrical contact, turn the power source off immediately if possible. If this is not practical, use a nonconductor to break the person's grip and remove him/her from the source. Be familiar with the location and pieces of equipment available on the electrical safety board.
25. In cases of suspended breathing due to electrocution, apply artificial respiration (CPR) as soon as possible. Once CPR has been initiated it must be continued until the victim can be seen by a physician. Electrical safety boards must be properly maintained and any discrepancies reported to the maintenance officer or the ASO.

## **6.G.13 - PERSONAL PROTECTIVE EQUIPMENT -**

1. An adequate supply of personal protective equipment will be provided at all times.
2. Protective equipment required for the particular work being done must be used by all personnel.
  - Goggles, masks, etc., if any eye hazard exists.
  - Respirator, if dust, fumes, vapors, gases, etc. are present.
  - Gloves made of the proper material for handling rough, sharp, hot or chemically hazardous materials.
3. Protective creams must be used if hands are exposed to solvents, degreasers, thinners, desiccants or other harmful chemicals.
4. Chemical resistant aprons, leggin's gloves, etc., must be provided and used where needed.
5. Respirator filters and/or cartridges must be changed as the need arises. Available through supply.
6. Soled and heeled shoes made of rubber or nonconductive materials, not having nails or brads, and which completely encase the foot are the recommended shoes for electronic and electrical workers.
7. Emergency showers shall be available and maintained in good working order where workers are exposed to the possibility of coming in contact with toxic solutions through either handling or accidental splashing.
8. Two (2) or more chemical respirators or protective masks must be immediately available for rescue workers in the event of an accidental release of a heavy concentration of toxic gases in potentially dangerous locations.
9. Industrial grade eye glasses prescribed only by a reputable optician are to be used by workers. If industrial grade eyeglasses are not available then industrial grade goggles over prescription glasses are to be used.

## **6.G.14 - OCCUPATIONAL HAZARDS -**

1. Dusts:
  - Avoid prolonged exposure to breathing of any dust.
  - Use damp sweeping compounds wherever needed to clean excess dust.
  - Do not use compressed air to clean work benches, floors or clothing.
  - Approved respirators must be worn where dust cannot be controlled by other means.
  - Where circumstances warrant, use mechanical dust exhaust systems such as a vacuum cleaner.
2. Gases, fumes and vapors:
  - Very small quantities of certain gases, fumes or vapors may result in death or violent symptoms, while others may be tolerated in fairly high concentrations without harmful effects. Any vapor, fumes or gas that causes eyes to tear, irritates the nasal mucous membranes, or irritates the skin, or has a strong odor may be toxic, corrosive, flammable, explosive or a combination thereof. These and other physical disturbances are natural warnings and must be observed. Suspicious substances should be identified and the proper protective equipment utilized when working with them.
  - Each supervisor and worker exposed in any way to any gases, fumes or vapors must be familiar with the nature of the substance, and be familiar with control measures.
  - Adequate ventilation must be maintained in areas where vapors and fumes are present.
  - Open containers of volatile substances must be kept in as small a quantity as practical in order to control evaporation.
  - Striking matches in areas where volatile substances are being used is strictly prohibited.
  - Adequate exhaust systems must be installed and kept in good repair to remove excess gases, vapors and fumes.
3. Solvents, degreasers, thinners, cutting oils.
  - Nearly all solvents, degreasers and thinners lower the fat or moisture content of the skin which promotes the growth of microorganisms resulting in dermatitis and fungus infestation. Skin protection must be observed at all times.

- Illumination systems must provide adequate light for the job being done and direct glare must be avoided whenever possible.
- Fresh air intakes shall be avoided in contaminated areas.
- Exhausted contaminants shall not be placed in such a manner as to endanger personnel and/or property. Environmental standards shall be observed at all times.
- Loud and unnecessary noises such as tipping over pallets, misuse of warning devices, and indiscriminate use of test equipment must be controlled.
- Items of jewelry (rings, watches, etc.) will not be worn when performing maintenance.

## **6.G.15 - OFFICE WORKERS -**

1. The office is a comparatively safe place to work, but it must not overlooked as a source of accidents, such as slipping and falling on waxed floors, collisions with personnel or doors, tripping or falling over furniture or strains from moving furniture.
2. Every worker will be familiar with the location of fire exits.
3. Every worker will be familiar with building fire drill procedures
4. Drawers of desks, filing cabinets and counters shall be closed immediately after use.
5. Use your hand to close filing cabinets.
6. Desks, filing cabinets, and other office furniture shall be arranged so as to not block pathways.
7. Do not tip backward or forward when sitting on four-legged chairs.
8. Do not sit on the forward edge of a swivel chair that has four (4) legs equipped with casters. It can tip forward very easily.
9. Do not leave loose objects on chairs or on the floor.
10. Chairs, boxes and other unstable objects will not be used as improvised ladders.
11. Do not walk while reading correspondence.
12. Exercise caution when approaching doors that swing out into a hallway or when walking around corners.
13. Sharp or pointed objects such as knives, scissors, shear or envelope cutter and opener shall be used only for the purpose intended.
14. All wires placed across the floor shall be installed in suitable conduits sunk flush with the floor, covered with material strips or covered with a rubber floor covering. There will be no loose wiring on the floor.
15. Do not strain at tightly closed windows, lift improperly or attempt to lift loads which are too heavy.
16. Avoid carrying sharp pointed pencils in pocket or hands unnecessarily.
17. Keep waste containers out of aisles and passageways.
18. Paper cutters must be used cautiously to avoid cutting fingers and must be left in the closed and locked position when finished with its use.
19. Where office exits empty into foot or vehicular traffic, look and listen before leaving the office.
20. The placing of broken glass in waste paper baskets is expressly prohibited.
21. The distribution of weight in file cabinets should be such that the top drawer contents are not disproportionate. Avoid having more than on (1) file drawer open at a time.
22. Any faulty condition of desks, chairs or other office equipment should be promptly corrected.
23. Running in hallways or corridors is strictly prohibited.

## **6.G.16 - SANITATION -**

1. Hands must be washed thoroughly before eating, if toxic substances have been handled.
2. Clothing soaked with flammable, corrosive, or toxic substances should not be worn longer than is necessary.
3. Spitting on floors, in wash basins, or drinking fountains is strictly prohibited.
4. Sanitary closets and urinals must be flushed after each usage and should be provided with tight fitting lids.
5. All garbage and refuse must be deposited in properly designated cans with tight fitting lids.
6. Coffee bars must be kept clean and orderly and foods must be protected from dirt, flies and vermin.

## **6.G.17 - SMOKING -**

Smoking is not authorized indoors. Designated smoking areas are outside of the building.

## **6.G.18 - AIRCRAFT GROUND SAFETY BRIEFING -**

1. Supervisors will insure that all personnel are briefed on aircraft ground safety on all aircraft types assigned to this facility. The briefing will include but is not limited to:
  - Emergency equipment.
  - Emergency egress systems and their operation.
  - All pyrotechnics installed and their operation.
  - Any safety devices for systems and subsystems.
  - The purpose of any equipment marked with yellow and black or white and black stripes